

DDP-224 OF CODE.

OP-CODE MNEMONIC	OCTAL	FUNCTION	X	I	O'F
CRA	60	0 $\rightarrow$ (A)			
IAB	57	(A) $\rightarrow$ (B)			
LDA	24	(EA) $\rightarrow$ (A)	P	P	
LDB	23	(EA) $\rightarrow$ (B)	P	P	
STA	05	(A) $\rightarrow$ (EA)	P	P	
STB	03	(B) $\rightarrow$ (EA)	P	P	
STC	04	(A) ₁₋₉ $\rightarrow$ (EA) ₁₋₉	P	P	
STD	06	(A) ₁₀₋₂₄ $\rightarrow$ (EA) ₁₀₋₂₄	P	P	
TAB	55	(A) $\rightarrow$ (B)			
ADD	10	(A) + (EA) $\rightarrow$ (A)	P	P	P
ADM	20	(A) + (EA) $\rightarrow$ (A)	P	P	P
BCD*	5134	(A) BCD $\rightarrow$ (A) Binary	P	P	
BIN*	5130	(A) Binary $\rightarrow$ (A) and (B) BCD	P	P	(P)
CMA	5124	2's Complement of (A) $\rightarrow$ (A)		P	
CSA	5120	2's Complement of (A) $\rightarrow$ (A) if sign of A is negative		P	
DIV	35	(A, B) / (EA) $\rightarrow$ (quotient to B, remainder to A)	P	P	(P)
MPY	34	(B) x (EA) $\rightarrow$ (A, B)	P	P	
RND	62	(A) + 1 $\rightarrow$ (A), if (B) ₂ = 1			P
SBM	21	(A) - (EA) $\rightarrow$ (A)	P	P	P
SMP	30	See Manual	P	P	P
SUB	11	(A) - (EA) $\rightarrow$ (A)	P	P	P
ANA	15	(A) AND (EA) $\rightarrow$ (A)	P	P	
ERA	17	(A) Exclusive OR (EA) $\rightarrow$ (A)	P	P	
ORA	16	(A) OR (EA) $\rightarrow$ (A)	P	P	
ALS**	41	Shift (A) ₂₋₂₄ left, positions specified by (EA) ₁₉₋₂₄	P	P	P
ARS**	40	Shift (A) ₂₋₂₄ right, positions specified by (EA) ₁₉₋₂₄	P	P	
LGL**	47	Shift (A) ₁₋₂₄ left, positions specified by (EA) ₁₉₋₂₄	P	P	
LLR**	43	Rotate (A, B) ₁₋₂₄ left, positions specified by (EA) ₁₉₋₂₄	P	P	
LLS**	45	Shift (A, B) ₂₋₂₄ left, positions specified by (EA) ₁₉₋₂₄	P	P	P
LRR**	42	Rotate (A, B) ₁₋₂₄ right, positions specified by (EA) ₁₉₋₂₄	P	P	
LRS**	44	Shift (A, B) ₂₋₂₄ right, positions specified by (EA) ₁₉₋₂₄	P	P	
NRM	46	Shift (A, B) ₂₋₂₄ left until (A) ₂ = 1, See Manual	P	P	
SCL**	65	Shift (A, B) ₂₋₂₄ left and decrement index register, positions specified by (EA) ₁₉₋₂₄	R	P	P
SCR**	64	Shift (A, B) ₂₋₂₄ right and increment index register, positions specified by (EA) ₁₉₋₂₄	R	P	

X = Indexable
I = Indirectly Addressable

O'F = Overflow

* = Optional

** = If indirect address not specified (I = 0), address portion of instruction is effective operand

n = Positions shifted

P = Possible

R = Required

(P) = Improper divide possible

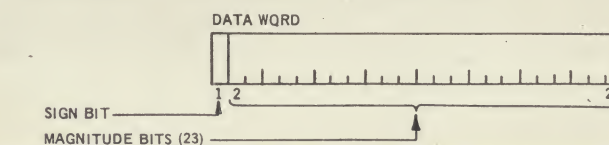
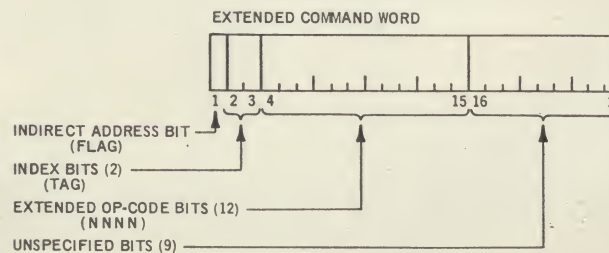
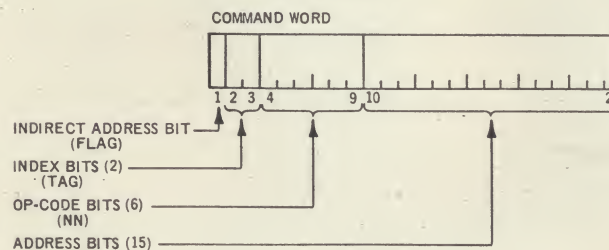
EA = Effective Address

() = "Contents of"

OP-CODE MNEMONIC	OCTAL	FUNCTION	X	I	O'F
JMP	74	Jump to EA	P	P	
JOF	73	Jump to EA if overflow indicator set; reset overflow indicator	P	P	
JPL	70	Jump to EA if sign of (A) is +	P	P	
JRT	25	Jump to location specified by (EA) ₁₀₋₂₄ restore interrupt	P	P	
JST	27	Jump to EA + 1 and store location in (EA) ₁₀₋₂₄	P	P	
JZE	71	Jump to EA if (A) = $\pm$ 0	P	P	
SKF	5114	Skip next instruction if A does not have a ZERO for every corresponding ONE in B.		P	
SKG	12	Skip next instruction if (A) > (EA)	P	P	
SKN	13	Skip next instruction if (A) $\neq$ (EA)	P	P	
SKT	5110	Skip next instruction if A does not have a ONE for every corresponding ONE in B.		P	
ADX**	54	(X) + (EA) ₁₀₋₂₄ $\rightarrow$ (X)	R	P	
IRX	67	(EA) ₁₀₋₂₄ + 1 $\rightarrow$ (EA) ₁₀₋₂₄ and (X) or (A). See Manual.	P	P	
JIX	72	Jump to EA if (X) $\neq$ 0	R	P	
JXI	75	(X) + 1 $\rightarrow$ (X), Jump to EA if resultant (X) $\neq$ 0	R	P	
LDX**	56	(EA) ₁₀₋₂₄ $\rightarrow$ (X)	R	P	
STX	66	(X) $\rightarrow$ (EA) ₁₀₋₂₄	R	P	
TAX	63	(A) ₁₀₋₂₄ $\rightarrow$ (X)	R	P	
TXA	5104	(X) $\rightarrow$ (A) ₁₀₋₂₄	R	P	

** = If indirect address not specified (I = 0), address portion of instruction is effective operand

WORD FORMATS



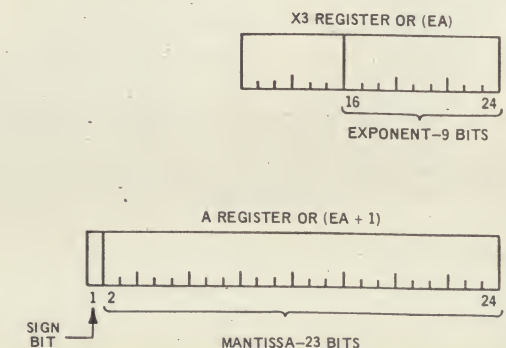
OP-CODE MNEMONIC	OCTAL	FUNCTION	X	I	O'F
DMB	32	Dump memory starting at EA. See Manual.	R	P	
ENB	5140	Enable Interrupt		P	
FMB	31	Load memory starting at EA. See Manual.	R	P	
INA**	52	Input $\rightarrow$ (A) according to mask in (EA). See Manual.		P	
INH	5100	Inhibit Interrupt		P	
INM	07	Input $\rightarrow$ (EA)	P	P	
LDK	5112	(A) $\rightarrow$ I/O channel status indicators		P	
OCP**	53	Select I/O according to mask in (EA)	P	P	
OTA**	50	(A) $\rightarrow$ Output according to mask in (EA). See Manual.		P	
OTM	22	(EA) $\rightarrow$ Output	P	P	
STK	5106	I/O channel status indicators $\rightarrow$ (A)		P	
SKS**	61	Skip next instruction if sense line not set. Sense line specified by (EA).	P	P	
HLT	00	Stop computer operation until start button pressed			
NOP	77	Perform no operation			
RPT	01	Repeat instruction at EA. See Manual.	P	P	
XEC	02	Execute instruction at EA	P	P	

** If indirect address not specified (I = 0), address portion of instruction is effective operand.

OP-CODE MNEMONIC	OCTAL	FUNCTION	X	I	O'F	EOV
CME*	5102	2's Complement of (X) $\rightarrow$ (X)	R	P		
FAD*	33	(A), (X3) ₁₆₋₂₄ + (EA) ₁₆₋₂₄ , (EA + 1) $\rightarrow$ (A, B), (X3) ₁₆₋₂₄	P	P		P
FDV*	37	(A, B), (X3) ₁₆₋₂₄ / (EA) ₁₆₋₂₄ , (EA + 1) $\rightarrow$ (A, B), (X3) ₁₆₋₂₄	P	P		P
FLD*	14	(EA) ₁₆₋₂₄ , (EA + 1) $\rightarrow$ (A), (X3) ₁₆₋₂₄	P	P		
FMP*	36	(A), (X3) ₁₆₋₂₄ x (EA) ₁₆₋₂₄ , (EA + 1) $\rightarrow$ (A, B), (X3) ₁₆₋₂₄	P	P		P
FSB*	26	(A), (X3) ₁₆₋₂₄ - (EA) ₁₆₋₂₄ , (EA + 1) $\rightarrow$ (A, B), (X3) ₁₆₋₂₄	P	P		P
FST*	76	(A), (X3) ₁₆₋₂₄ $\rightarrow$ (EA) ₁₆₋₂₄ , (EA + 1)	P	P		

* Optional
EOV = Exponent overflow/underflow

FLOATING-POINT DATA FORMAT



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